

19. (Previously Presented) A coordinate measuring machine controller programmed to run a data fusion algorithm according to claim 12.

20. (Previously Presented) A program for a coordinate measuring machine controller which operates in accordance with a data fusion algorithm according to claims 12.

REMARKS

Claims 1-20 are pending. By this Amendment, claims 1 and 6 are amended.

Reconsideration is respectfully requested in view of the following remarks.

I. The Claims Satisfy Formal Matters

The Office Action rejects claims 1 and 6 under 35 U.S.C. §112, second paragraph, as being indefinite. Claims 1 and 6 are amended to obviate the rejections. Accordingly, withdrawal of the rejection under 35 U.S.C. §112, second paragraph is respectfully requested.

II. The Claims Define Patentable Subject Matter

The Office Action rejects claims 1-20 under 35 U.S.C. §102(b) as being anticipated by Campanile (U.S. Patent No. 5,778,549). The rejection is respectfully traversed.

The passage below is provided to aid in the understanding of the invention and should not be construed as limiting the scope of the invention. In the invention, for example, an acceleration reading is detected and a displacement reading (from the position measuring devices of the machine) is taken. The acceleration reading is manipulated (by double integrating) and this value is then added to the displacement reading to obtain a corrected displacement value. Accordingly, claim 1 recites measuring acceleration values of a moving part of the machine, using position measuring devices of the machine to obtain first signals indicative of a displacement of the moving part, and applying a data fusion algorithm to obtain corrected values for a measured displacement of the moving part wherein the data fusion algorithm double integrates the measured acceleration values to produce second signals

indicative of a distortion from a nominal position of the moving part due to accelerations and combines the second signals with the first signals.

Campanile only discloses using measurements made by accelerometers (see, for example, the Abstract of Campanile). Therefore, Campanile does not disclose or suggest the above-noted features of claim 1.

The Office Action at page 3 asserts that Campanile discloses two displacement signals such as active line 30 and data line 32. Applicant respectfully disagrees.

As shown at Fig. 1 and at col. 8, lines 26-32 of Campanile, the measurement output unit of the path recorder arranged in the measurement probe 2 as well as the measurement output units of acceleration pickups 11 to 16 and 21 to 26 are connected to an analog/digital converter 31 by means of active lines 30. The digital measurement output unit is connected to an evaluator computer 33 via a digital data line 32. Thus, in Campanile, the asserted displacement signals are the analog and digital versions of the same signal (see also, col. 6, lines 11-14).

In the present invention, one displacement value (denoted SX, SY or SZ, see Figs. 3-6) are measured and one acceleration value (denoted AX, AY or AZ) is measured. The acceleration signal is converted by the data fusion algorithm into a displacement value which is added to the measured displacement value (see Figs. 3B, 4B, 5B, 6B). So, there are two completely different signals which combine to produce the corrected signal.

Accordingly, independent claim 1 defines patentable subject matter. Independent claims 12 also defines patentable subject matter for reasons as discussed with respect to independent claim 1. Claims 2-11 and 13-20 depend from the respective independent claims, and therefore also define patentable subject matter as well as for other features they recite. Accordingly, withdrawal of the rejection under 35 U.S.C. §102(b) is respectfully requested.

III. Conclusion

In view of the foregoing, this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-20 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachment:
Petition for Extension of Time

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